

## CLAIMS

What is claimed is:

1. A method comprising:

listening at an application programming interface for a notification indicating that a change is to be made in a topology of streaming media software components; and

when the notification is received, notifying a media engine, wherein:

the media engine is capable of reconfiguring the topology in accordance with the indicated change; and

at least one of the topology or the reconfigured topology have:

one said streaming media software component located on a computing device; and

another said streaming media software component located on another computing device.

2. The method as described in claim 1, wherein the notification is provided by an operating system.

3. The method as described in claim 1, wherein the notification is provided by an application.

4. The method as described in claim 1, wherein the notification is provided by one or more said streaming media software components of the topology.

5. The method as described in claim 1, wherein the change includes at least one of adding or removing one or more said streaming media software components to the topology.

6. The method as described in claim 1, wherein the change includes at least one of adding or removing one or more said streaming media software components to the topology that render the streaming media.

7. The method as described in claim 1, wherein the change includes at least one of adding or removing one or more said streaming media software components to the topology that source the streaming media.

8. The method as described in claim 1, wherein the change includes at least one of adding or removing one or more said streaming media software components to the topology that handle the streaming media.

9. The method as described in claim 1, wherein the topology of streaming media software components include:

one or more media sources individual ones of which serving as a source of the streaming media;

one or more transforms communicatively linked with the one or more media sources and configured to handle the streaming media from the one or more media sources; and

one or more media sinks configured to sink the streaming media from the one or more transforms.

10. The method as described in claim 1, further comprising registering to receive the notification from an operating system.

11. The method as described in claim 1, further comprising initializing the reconfigured topology to have an execution state relative to the streaming media that matches an execution state of the topology of when the notification was received.

12. The method as described in claim 11, wherein each said execution state includes execution characteristics that relate to the streaming media and are selected from the group consisting of:

start;

pause;

stop;

fast forward;

rewind;

slow motion; and

position in the streaming media.

13. One or more computer readable media comprising computer executable instruction that, when executed on a computer, direct the computer to perform the method

as described in claim 1.

14. A method comprising:
  - listening at an application programming interface for a notification indicating that a change is to be made to a first topology of software components that is:
    - capable of streaming media; and
    - has an execution state relative to the streaming media;
  - reconfiguring the first topology in accordance with the indicated change to form a second said topology; and
  - initializing the second said topology to have an execution state that matches the execution state of the first topology, wherein at least one of the first or the second said topology have said software components that are distributed on a plurality of computing devices.

15. The method as described in claim 14, wherein the plurality of computing devices is communicatively coupled via a network.

16. The method as described in claim 14, wherein the at least one of the first or second topology have said software components that are distributed on a plurality of computing devices such that:

one said software component is located on a first said computing device; and  
another said software component is located on a second said computing device.

17. The method as described in claim 14, wherein each said execution state includes execution characteristics that relate to the streaming media and are selected from the group consisting of:

start;

pause;

stop;

fast forward;

rewind;

slow motion; and

position in the streaming media.

18. The method as described in claim 14, further comprising registering to receive the notification from an operating system.

19. One or more computer readable media comprising computer executable instruction that, when executed on a computer, direct the computer to perform the method as described in claim 14.

20. One or more computer readable media comprising computer executable instruction that, when executed on a computer, direct the computer to:

listen at an application programming interface for a notification from at least one software component included in a topology of said software components, wherein the notification indicates that a change is to be made to the topology that includes:

one or more media sources individual ones of which serving as a source of a media stream;

one or more transforms communicatively linked with the one or more media sources and configured to handle the media stream from the one or more media sources; and

one or more media sinks configured to sink the media stream from the one or more transforms; and

when the notification is received, notify a media engine for reconfiguring the topology in accordance with the indicated change, wherein at least one of the topology or the reconfigured topology have respective said software components that are distributed on a plurality of computing devices.

21. The one or more computer readable media as described in claim 20, wherein the API is further configured to receive the notification from at least one of an application or an operating system.

22. The one or more computer readable media as described in claim 20, wherein the change includes at least one of adding or removing one or more said software components to the topology that at least one of source or render the streaming media.

23. The one or more computer readable media as described in claim 20, wherein the plurality of computing devices is communicatively coupled via a network.

24. The one or more computer readable media as described in claim 20, further comprising registering to receive the notification from an operating system.

25. The one or more computer readable media as described in claim 20, further comprising initializing the reconfigured topology to have an execution state relative to the streaming media that matches an execution state of the topology of when the notification was received.

26. The one or more computer readable media as described in claim 25, wherein each said execution state includes execution characteristics that relate to the streaming of the media and are selected from the group consisting of:

start;

pause;

stop;

fast forward;

rewind;

slow motion; and

position in the streaming of the media.

27. A system comprising:

a plurality of media;

one or more applications; and

an infrastructure layer that provides an application programming interface (API)

that is callable by the one or more applications to indicate that a change is to be made in a first topology of software components capable of streaming media, wherein:

the infrastructure layer, in response to the indication, reconfigures the first topology to form a second topology; and

at least one of the topology or the reconfigured topology have:

one said software component located on a computing device; and

another said software component located on another computing device.

28. The system as described in claim 27, wherein the API is callable by one or more said software components to indicate the change.

29. The system as described in claim 27, wherein the API is callable by an operating system that is executable on at least one said computing device.

30. The system as described in claim 27, wherein the infrastructure layer registers with an operating system to receive a notification that indicates the change.

31. The system as described in claim 27, wherein the computing device is communicatively coupled to the other computing device via an Internet.

32. The system as described in claim 27, wherein the infrastructure layer is configured to register with an operating system to receive a notification that indicates the

change.

33. A system comprising:
  - a plurality of media;
  - one or more applications;
  - an operating system; and
  - an infrastructure layer that provides an application programming interface (API) that is callable by the one or more applications or the operating system to:
    - indicate that a change is to be made in a first topology of software components that:
      - is capable of streaming one or more said media; and
      - has an execution state relative to the streaming of the one or more said media;
    - reconfigure the first topology in accordance with the indicated change to form a second topology; and
    - initialize the second topology to have an execution state that matches the execution state of the first topology, wherein at least one of the first or second topology have:
      - one said software component located on a computing device; and
      - another said software component located on another computing device.

34. The system as described in claim 33, wherein the infrastructure layer is

configured to register with an operating system:

that is executable on the computing device or the other computing device;

and

to receive a notification that indicates the change.

35. The system as described in claim 33, wherein the API is further callable by one or more said software components to indicate the change.

36. The system as described in claim 33, wherein the computing device is communicatively coupled to the other computing device via an Internet.

37. The system as described in claim 33, wherein each said execution state includes execution characteristics that relate to the streaming of the one or more said media and that are selected from the group consisting of:

start;

pause;

stop;

fast forward;

rewind;

slow motion; and

position in the streaming of the one or more said media.